Dodona egeon.

Taxila egeon, Doubl. & Hew. Gen. Diurn. Lep. ii. p. 422, t. 69. 2.
Dodona egeon, Butt. Ind. ii. p. 314.

Seems to be fairly common in the Karen Hills at 4000–5000 feet, and occurs also at Bernardmyo. The female is undescribed, and differs considerably from the male in having the yellow markings paler and much more diffused. I have females also from Kulu and Sikkim, which are somewhat darker than these.

EXPLANATION OF PLATE XXVII.

Fig. 1. *Ypthima methora*, Hew., ♂, p. 267.
2. *Ypthima narasingha*, Hew., ♀, p. 263.
3. *Mycalesis dohertyi*, n. sp., ♂, p. 261.
4. *Mycalesis dohertyi*, n. sp., ♀, p. 261.
5. *Araschnia prorsoides*, Blanch., ♂, p. 285.
6. *Araschnia prorsoides*, Blanch., ♀, p. 285.
7. *Neurosigma doubledayi*, var. ?, ♂, p. 277.
8. *Dodona deodata*, Hew., ♂, p. 288.

2. Notes on the Birds of the Phœnix Islands (Pacific Ocean). By J. J. Lister, M.A., F.Z.S.

[Received April 2, 1891.]

The Phœnix Islands are a scattered group of low coral islands lying far out in the South Pacific Ocean, extending from 1° north of the Equator to nearly 5° south of it. They are within 10° to the east of the 180th parallel, which divides east longitude from west.

There are eight islands south of the equator, viz. :—Sydney, Phœnix, Canton or Mary, Hull, Enderbury, Birnie, M'Kean, and Gardner Islands, and two outliers of the group to the north of it—Howland and Baker Islands.

Situated in the dry, comparatively rainless belt which extends some degrees on either side of the Equator, they are uninhabited desolate places only frequented by sea-birds, which resort to them in innumerable multitudes for nesting [1].

The notices of birds of this group with which I am acquainted are the following :—References to some of the islands as localities in Cassin's edition of the 'United States Exploring Expedition, Mammalogy and Ornithology,' and in the 'Fauna Centralpolynesiens' of Finsch and Hartlaub ; a description by Canon Tristram of an apparently new species of Duck (*Dafila modesta*, Tristram), and mention of other birds collected by Mr. Arundel in Sydney

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[1] Of late years the islands have been turned to account as a source of guano. An interesting general description of these and other guano islands was read by Mr. J. T. Arundel, F.R.G.S., before the Geographical Society of the Pacific, in San Francisco. It was reprinted in the 'New Zealand Herald,' July 5 and 12, 1890. See also J. D. Hague, "On the Guano Islands of the Pacific Ocean" ('Silliman's Journal,' xxxiv. 1862, pp. 224–243).

Island[1]; and the references in the papers of Messrs. Arundel and Hague mentioned in the footnote.

I had the opportunity, thanks to the kindness of Capt. W. J. L. Wharton, R.N., F.R.S., Hydrographer to the Admiralty, of visiting the group in the months of June and July 1889, in H.M.S. 'Egeria.' The islands touched at during the cruise were Sydney, Phœnix, Enderbury, Canton, Birnie, and Hull Islands, but it was only at Phœnix Island and Canton Island that our stay was sufficiently long to allow of any detailed observations on the birds.

Sydney Island, Canton Island, and Hull Island are regular coral atolls, having a complete or nearly complete ring of land enclosing a lagoon. Phœnix Island, Enderbury Island, and Birnie Island are smaller, and in them the lagoon is absent. At Hull Island and Sydney Island the land ring supports an abundant growth of trees; but at the other four islands the vegetation consists only of low bushes with coarse grass and a few trailing shore-plants.

The birds were assembled in the greatest numbers at Phœnix Island. As the 'Egeria' approached, a great column of wheeling Frigate-birds could be seen over one part extending many hundreds of feet up into the air, while at lower levels crowds of other birds flew hither and thither, and the clamorous noise of their cries came over the water from far away.

The island is of a rounded triangular shape, and measures about ½ a mile across. It is surrounded by a narrow reef of coral on which the big rollers, coming up before the trade-wind, break, making a deep undertone to the cries of the birds. On the leeward side there is a gap in the reef, and here a party landed for the purpose of making a survey of the island.

The beach of coral boulders slopes gently up to a height of some 12 to 15 feet above the level of the reef platform. From the top of this beach ridge there is a rather steep slope down to the flat inner part of the island. Thus the island is somewhat saucer-shaped, being flat with a raised margin. At the time of our visit the interior of the island was occupied by a shallow brackish pond with soft muddy sides, and swarming with mosquito larvæ. This probably stood in a depression made when the island was worked for guano. I found only four kinds of plants on the island. The largest of these was a yellow-flowered shrub (*Sida fallax*, Walp.) belonging to the order of the Mallows, and growing from two to three feet high, with trailing branches spreading outwards from the central stems. The others were a coarse grass growing in tussocks and two small trailing plants. Bare tracts of coral-shingle interrupted the covering of vegetation here and there.

I was on the island for about seven hours, and obtained specimens of the following species of birds.

FREGATA MINOR (Gmel.).

From the boat I went off to the part of the island over which the Frigate-birds were wheeling. Here I found their nests in great numbers. They were built of small dead twigs of the plants of the island, placed a foot or so above the ground on the spreading branches of the *Sida* and on the beaten-down tussocks of grass. The nests were placed as near together as supports could be found, and there were well-defined limits to the colonies, although the bushes beyond these limits appeared to be just as well suited for the purpose as those within.

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[1] P. Z. S. 1886, p. 79.

Each nest was occupied by a bird. As one approached some of these took flight and joined the wheeling crowd overhead, but the rest remained sitting and allowed themselves to be touched with the muzzle of my gun, only chattering their bills by way of remonstrance. Both males and females were to be seen engaged in the duties of incubation.

The following table gives the points of difference which I noted between the sexes:—

Males.	*Females.*
Scarlet throat-pouch present.	No throat-pouch.
Long nape- and back-plumes.	No long nape-plumes.
Bill varies in colour from black to grey[1].	Bill varies in colour from pink to grey.
Feet and skin round the eye *black*.	Feet and skin round the eye *red*.
Wing-coverts black.	Wing-coverts pale brown.
Breast and belly dark except for a white streak on each side of the latter. No pale nape-band.	Breast and fore part of belly white; nape-band white to tawny.

A few of the birds had the white or pale tawny heads of the immature plumage. They were in the proportion of about 1 to 100 of those in ordinary plumage. I saw none of these on the nests.

The throat-pouch of the male is a most striking object. When fully distended it reaches forward as far as the end of the bill and downwards so as to completely hide the breast—a great smooth semitransparent balloon of the most brilliant scarlet, which contrasts finely with the dark metallic tints of the plumage. If any of the birds in a group had their pouches distended, there were generally several in this condition, as though they were vieing with one another in the exhibition of their attractions. From several parts of the group came a low vibrating note, a combination of a whistle and a purr accompanied by the sound of the chattering of their bills. While uttering this note the bird leans back on the nest, with the head thrown right back, the pouch fully extended, and the wings half spread and shaken with a quivering movement. The female birds meanwhile were either wheeling overhead or sitting on the edge of the nest near their admirers.

The pouch is not rapidly filled or emptied. When a bird with a half-distended pouch takes flight, the latter is carried from side to side with the movement through the air, gradually diminishing in size. In the undistended state the bare wrinkled skin is completely

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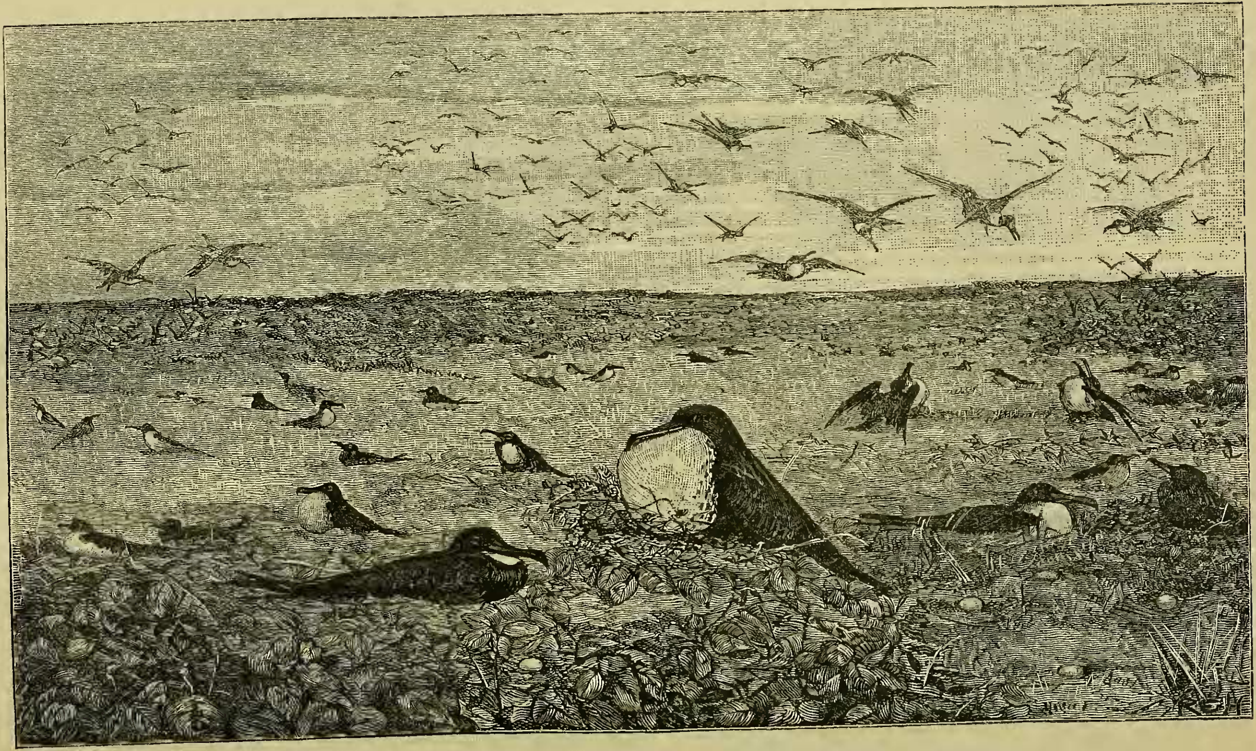
[1] When the bills are grey, the colour is due to the rough surface and appears to be a sign of age.



A Colony of Frigate-birds (*Fregata minor*) on Phœnix Island.

retracted to the level of the general contour of the neck. The interior of the pouch is in communication with the air-sacs of the neck; it is therefore filled and emptied through the bronchi. Bands containing blood-vessels, with which the wall of the pouch is very richly supplied, traverse the cavity, passing from the fleshy part of the neck to the outer wall. On blowing through a tube into the great air-sac at the base of the neck, the pouch becomes distended, and remains so if a ligature is tied round the neck, below the pouch.

By far the greater number of nests at Phœnix Island contained a single white egg, about as large as a hen's; some nests, however, contained two eggs. There were no young birds at this island.

At Canton Island, though some nests contained young birds, others were being built. I saw a male bird bringing sticks in his bill to the female, who arranged them in the nest. There are pools of fresh water on this island, and here and at Swain Island (south of the Union Islands), where there is a freshwater lagoon, I saw Frigate-birds coming down to drink. Sweeping down to the surface, they scooped up the water with the lower mandible.

Peale obtained the eggs of Frigate-birds (he does not give the species) in the Caroline Islands (Enderby Island) in January, and at Puka-puka (Honden Island), in the Low Archipelago, in August, and at other islands during the intervening period. He states his opinion that there is no definite period for the nesting of these birds in equatorial regions. The fact that there was not a single unfledged young bird among the thousands of nests with eggs at Phœnix Island shows that the members of this colony had begun nesting at the same time.

PHAETON RUBRICAUDA, Bodd.

There were several of this bird, which ranges through the tropical parts of the Pacific and Indian Oceans. One was caught in its nesting-place, which was in a pile of the rough coral blocks which had been thrown together by the guano-diggers. There was a single egg. At Canton Island I found the birds incubating their solitary eggs on the ground under cover of bushes; they were so tame as to allow themselves to be caught.

The plumage was tinged with a pale pink colour, though more deeply in some than in others.

There were three kinds of Gannets on the island:—*Sula cyanops* (Sundev.), *S. leucogaster* (Bodd.), and *S. piscatrix* (Linn.). These species all have very extensive ranges in the tropics.

SULA CYANOPS (Sundev.).

There were numbers of these birds, some solitary with their eggs and some in groups. The eggs are laid on the ground, singly or in pairs; they are of a pale blue colour almost covered with the white, chalky, uric-acid covering. In some cases there were young birds, who with the parents hissed and barked defiance with great spirit as one approached. It was most amusing to watch the small fluffy young one beside the parent bird joining in and adding its weak notes of defiance to hers. She certainly managed to appear very formidable with her feathers ruffled and powerful yellow bill half open ready for attack, the pupil contracted to a speck in the middle of the bright yellow iris, which gleamed out from the bare dark grey skin surrounding it.

The feet are of a brownish-grey colour.

SULA LEUCOGASTER (Bodd.).

These were less numerous than the White Gannet. The bill is rather less powerful, and is greenish blue, becoming bluer at the base. The iris is grey and the feet a delicate pale green. The young bird has the blue bill and grey iris of the adult, but the feet are pale red. The nest is built of sticks and placed on the bushes like those of the following species.

SULA PISCATRIX (Linn.).

These birds built their nests on the *Sida* bushes a few feet from the ground. They were not in colonies but scattered here and there, and I noticed some in the middle of the Frigate-bird colonies, where they lived apparently in perfect peace with their neighbours, though it is one of the common sights to see the Frigate-birds chasing them out at sea to make them hand over the fish they have caught. The bird has a curiously incomplete look, the feathers not sitting close and smooth as in its allies, and the colours, though bright, appear to be in indifferent taste. The bill is greyish blue, and the bare skin which extends over the lores and behind the eye is bright blue. At the base of both upper and lower mandible is a band of pink gradually blending with the colours behind. The skin between the rami of the mandible and on the 'chin' is dark slate. The feet are of a dark pink, almost magenta.

The eggs of the three species have the pale blue ground-colour almost hidden by the chalky-white covering. Those of *S. cyanops* are much larger than the others. My specimens vary in weight as follows:—

S. cyanops	119 to 144 grs.
S. leucogaster	80 to 88 ,,
S. piscatrix	69 to 83 ,,

At Canton Island a clump of *Tournefortia* trees was habitually used by these birds (*S. piscatrix*) as a roosting and preening place. Among the pieces of down which were sticking to the bare branches, having been preened out of the feathers, was found one entangled with a seed of one of the trailing plants of the island (*Boerhaavia tetrandra*, Forst.), which is beset with glandular hairs. Such an incident indicates a method by which seeds may be distributed from island to island by birds.

TUBINARES.

PUFFINUS NATIVITATIS, Streets[1].

Though this bird was frequently seen both at Phœnix and Canton Islands, I only obtained one egg, which was placed in the interior of a heap of rough coral blocks piled together by the guano-diggers. It is pure white, and of a long oval shape, measuring 2·3 in. in length and barely 1·5 in. in breadth.

The bird was first described from Christmas Island (Pacific Ocean), and two specimens have since been obtained at Krusenstern Island to the west of the Sandwich Islands.

ŒSTRELATA PARVIROSTRIS (Peale[2]).

There were numbers of this species, wheeling rapidly hither and thither near the ground in wide figure-of-8 curves just as the smaller Petrels do over the surface of the sea. They place their eggs, with almost no nest, on the ground under the tangled branches of the bushes. The egg is white, and measures 2·3 in. in length and 1·65 in. in breadth. A newly hatched young one was covered with dark grey down.

The bird appears to be known only from Puka-puka (=Honden or Dog Island, Low or Paumotu Archipelago), near which a single individual was obtained by Peale[3] on the visit of the Wilkes Expedition. This specimen has remained hitherto unique.

FREGETTA ALBIGULARIS (Finsch).

During the middle of the day there were few of these birds to be seen, but towards sunset before we left the island they came in in considerable numbers. I watched one of them beating backwards and forwards over a sandy tract sparsely covered with grass, in which they make their burrows. It was some time before the bird found his home and settled down. I caught it as it was disappearing. On putting my arm into the burrow I found a second bird at the extreme end, which was just as far as I could reach. I found no eggs in the burrows, but on opening one of the birds that I obtained I found an egg ready to be laid in the oviduct.

This egg measures 1·54 in. in length and 1·12 in. in breadth. It is of a creamy-white colour, with minute spots profusely sprinkled at the larger end, but sparsely over the remainder. Those of the deeper layers are pale purple, the superficial ones reddish brown.

The sandy tract above mentioned contained a large number of burrows, so that on walking over it the ground frequently gave under foot.

This bird was first described as a distinct species by Finsch from Kandavu in Fiji[4]. It had been previously obtained from the Marquesas Islands[5] and from the New Hebrides[6].

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[1] Bull. United States Mus., No. vii. 1877, p. 29.

[2] Peale, Zoology of United States Exploring Expedition, 1848, p. 298.

[3] Cassin, U. S. Expl. Exped., Mammalogy and Ornithology, p. 411.

[4] Finsch, P. Z. S. 1877, p. 722.

[5] Bp. "Ois. Marquises," Comptes Rend. 1856, xli. p. 1109.

[6] Salvin, P. Z. S. 1879, p. 130.

LARIDÆ.

STERNA FULIGINOSA (Gmel.).

STERNA LUNATA (Peale[1]).

These two species had precisely similar habits. There were thousands of them on the island going about in large flocks, now settled on the ground and now rising with shrill and deafening cries. The flocks were not mixed, each being formed of a single species. The eggs are laid on the bare patches of coral shingle, the two species occupying separate areas. Though I came on several of these patches and collected numbers of the eggs, I never found two eggs together, as though laid by one bird.

The habits of the Sooty Tern (*Sterna fuliginosa*), with regard to the number of eggs it incubates at one time, appear to vary. Pickering states that among the hundreds of eggs he saw at Rosa Island, he saw two eggs together only in two cases[2]. Similarly at 'Wideawake Fair' on Ascension the bird is described as laying only a single egg[3]. On the other hand, Hume found the eggs "two and three together" at the Laccadive Islands[4], and Audubon states that the bird lays three eggs[5] in his description of their nesting-haunts in the Tortugas Keys.

Both Arundel and Hague (*op. cit.*) say that the "Wideawakes," under which term either or both of these species may be included, have two laying-seasons in the year at these islands.

Sterna fuliginosa is found all round the world in the tropics, occasionally visiting our own shores. *Sterna lunata*, which was first obtained by the Wilkes Expedition at various tropical islands of the Pacific, ranges also into the Indian Ocean.

The egg of *Sterna lunata* resembles that of *S. fuliginosa* in colour, but it is smaller and rounder. My largest specimen is 1·68 in. long and 1·26 broad, the smallest is 1·55 in. long and 1·2 broad. The egg is creamy white, profusely and uniformly sprinkled with overlying spots of rich brown and deeper ones of pale purple.

ANOUS STOLIDUS (Linn.).

These were present in hundreds, going about in large flocks. They have a habit of settling packed together as close as they can stand. I found no eggs, but we came on half-fledged young birds under the tangled branches of the *Sida*.

The bird is distributed through all the tropical seas.

ANOUS CÆRULEUS (Bennett[6]).

This exquisite little bird is of a delicate silvery-grey colour and the most elegant proportions. They follow one about in parties of four or six and perch on the top of a rock or shrub close at hand in the most friendly manner.

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[1] Peale, Zoology U. S. Expl. Exped. 1848, p. 277.

[2] Cassin, U. S. Expl. Exped., Zool. p. 388.

[3] Sperling, 'Ibis,' 1868, p. 287. Penrose, Ibis, 1879, p. 278.

[4] Hume, 'Stray Feathers,' 1876, p. 430.

[5] Audubon, 'Ornithological Biography,' vol. iii. p. 266.

[6] Narrative of a Whaling Voyage round the Globe, ii. p. 298 (1840).

I found the egg afterwards at Canton Island early in July. It was laid in a hollow among the rough weathered clinkers of coral rock above high-tide level. A few bits of thin shells, pieces of coral, and some sticks composed the nest. There was one egg in each of the two nests I found. The egg is astonishingly large for the size of the bird, measuring 1·5 in. in length and 1·03 in breadth. It is pale cream-colour with a thin uniform sprinkling of small spots, the underlying ones pale greyish brown and indistinct, the superficial ones sharply defined and rich brown.

Peale found the eggs, three in a nest, at Puka-puka or Honden Island in the Paumotu Archipelago, in August[1], and Dr. Gräffe found them at M'Kean Island, in the Phœnix Group, in October and November[2].

The bird ranges widely, at least over the Central Pacific. It has been recorded from Christmas Island[3], Fanning Island[4], the Marquesas[5], the Paumotus[6], and the Phœnix[7] and Ellice Islands[8].

Gygis candida (Gmel.).

Abundant here and at Canton Island. They frequently came flying round my head in pairs, uttering their curious nasal note, and approaching so close that I quite naturally put up my hand fancying for the moment they would alight. They lay their solitary eggs on the bare coral rock in the absence of the branches of trees which they use elsewhere. The bird is distributed widely through tropical seas. It appears that it is absent from the shores of Africa and the Malay Archipelago.

There were three kinds of Wading birds on the island—Curlews, Plovers (*Charadrius fulvus*, Gmel.), and Turnstones (*Strepsilas interpres* (Linn.)); but as my specimens came from Canton Island I will defer mention of them to the account of our visit there.

Rabbits are fairly plentiful on the island, having no doubt been left here when it was worked for guano.

A large scarlet Hermit-crab is very abundant, and proved a great nuisance in attacking the birds that were left under shelter, tearing their feet and the bare skin about the throat. The birds arrived at the ship in rather a draggled condition, having been wetted by a shower; some of them had been mauled by the crabs, and, to finish up, they were all more or less soused with sea-water as we were putting off from the difficult landing.

All the time we were on the island there was a deafening clamour

[1] Cassin, U. S. Expl. Exped., Mamm. & Orn. p. 394.
[2] Finsch and Hartlaub, 'Fauna Centralpolynesiens,' p. 240.
[3] Bennett, *loc. cit.*
[4] Arundel; Tristram, Ibis, 1883, p. 48.
[5] Tristram, Ibis, 1881, p. 252.
[6] Peale, Zool. U. S. Expl. Exped., Birds, p. 285.
[7] Finsch and Hartlaub, *loc. cit.*
[8] Whitmee; Sharpe, P. Z. S. 1878, p. 271.

of different birds' notes. They were so numerous that several times when shooting a bird a second dropped as well, happening to come into the line of fire.

I was unable to land at Sydney Island owing to the heavy surf on the beach. A boat effected a landing, but was so much knocked about that no second attempt was made. It was very tantalizing, as the greater part of three days was spent in the neighbourhood of the island making soundings, and a great column of wheeling Frigate-birds could be seen from the ship over one end of the island; and, flying over, I saw Gannets (*Sula*, 2 sp.), Boatswain-birds (*Phaeton rubricauda*), Noddies (one of the large ones and the little *A. cæruleus*), and Terns, and small squads of Curlew, Plover, and Turnstone.

Canon Tristram has described a new species of Pintail Duck (*Dafila modesta*)[1] from this island, which was obtained by Mr. J. T. Arundel.

A stay of only a few hours was made at Enderbury Island, and I had no opportunity of landing. There appeared to be fewer birds here than at Phœnix Island.

We stayed at Canton Island from the 1st to the 9th of July. As above stated this is an atoll-shaped island, formed by a belt of low land enclosing a lagoon, which communicates only by one narrow channel with the sea. Except for a few low bushy thickets of a widely distributed tree (*Tournefortia argentea*, nearly allied to the Heliotrope), this island is as treeless as Phœnix Island. Like that island it is covered with a low bushy growth, but a rather larger list of plants is found, amounting to some 10 species.

All the species of birds which we had seen at Phœnix Island occurred here, except the Little Petrel (*Fregetta albigularis*). Besides the Terns seen there I obtained:—

Sterna bergii, Lichtenstein,

which ranges throughout the warm parts of the Indian and Pacific Oceans.

Sterna melanauchen, Temm.

This is a very beautiful little bird, having a black horseshoe-shaped band limiting the white crown, a pale and most delicate shade of slate on the back, and the rest of the plumage white, tinged with a pale rose-colour.

It is found in the Nicobar and Andaman Islands of the Indian Ocean, and across the Malay Archipelago to the western part of the Pacific Ocean, where it has been recorded from New Caledonia, Fiji, Samoa, Tonga, Ponapé, and the Marshall and Gilbert Islands. I failed to find the nest.

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[1] Tristram, P. Z. S. 1886, p. 79.

Four species of Charadriidæ were seen on the island.

NUMENIUS TAHITIENSIS (Gmel.).

This curious species of Curlew, which is rare in collections, was abundant at Canton Island, and probably the birds I had previously seen at Sydney and Phœnix Islands belonged to this species.

The character which distinguishes this bird from all others is the peculiar development of the tibial plumes. Their shafts are produced into long shining bristles, which, projecting far beyond the general investment of feathers, produce a curious appearance.

The Curlews were very tame. They went about in parties of six or eight on the open shingly places and sandy shores of the lagoon, or flew round one's head uttering their notes like the words "*turree-turree.*"

The species was first obtained at Tahiti on Captain Cook's second visit and described by Gmelin[1]; since this it has been obtained at Vincennes Island in the Paumotus, and at Samoa, the Marquesas, Fanning, Gilbert, Phœnix[2], and Sandwich Islands. Its breeding-haunts appear to be in the far north of the American continent. It has twice been obtained in Alaska[3] in the month of May, where the birds were going about in pairs and were evidently in their nesting-haunts.

CHARADRIUS FULVUS, Gmel.

There were small squads of this widely-distributed bird both here and at Phœnix Island. Several of the males had assumed the fine black front of breeding plumage. I failed, however, to find the eggs or any indication of pairing.

The two forms of this species—Old World and New World—are only distinguished by slight differences of size. The measurements of my Phœnix Island specimens are intermediate, so they cannot be referred to one form or the other.

The only localities in which this bird is certainly known to breed are the tundras of Eastern Siberia on the one hand, and on the other the extreme north of the American continent, beyond the region of forest-growth. Thence they wander down to China, India, the Malay Islands, Australia, and the islands of the Pacific Ocean from the western part of their range and to South America from the eastern[4]. It is remarkable that so many birds should remain in their southern haunts in the height of the breeding-season. The wedding-plumage of the males shows that the birds were not immature.

STREPSILAS INTERPRES (Linn.).

These were also abundant, in flocks of 6 to 20 or so, working along the outer reef platform, or settling close together on the stretches of sand exposed at low tide on the shore of the lagoon. There was no indication of nesting. The bird, as is well known, is cosmopolitan in its range.

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[1] Syst. Nat. i. p. 656 (1788).

[2] Obtained by Gräffe at M'Kean Island, Finsch and Hartlaub, *l. c.* p. 177.

[3] Ridgway, Am. Nat. 1874, p. 435. Nelson, Cruise of the 'Corwin,' p. 90.

[4] Seebohm's 'Charadriidæ.'

TOTANUS INCANUS (Gmel.).

A few solitary individuals of this Sandpiper frequented the sandy shores of the lagoon of Canton Island.

The following twenty-six species of birds have been observed at the Phœnix Group[1]:—

Charadriidæ.

Charadrius fulvus, Gmel.	Sydney Island (*Arundel*), Sydney, Phœnix, and Canton Islands.
Strepsilas interpres (Linn.)	Sydney, Phœnix, and Canton Islands.
Numenius tahitiensis, Gmel.	Canton Island (Phœnix and Sydney Islands ?).
Totanus incanus (Gmel.)	Sydney Island (*Arundel*), Canton Island.

Laridæ.

Sterna bergii (Licht.)	Canton Island.
—— *panaya*, Gmel.	M'Kean Island (*Gräffe*).
—— *fuliginosa*, Gmel.	Phœnix and Canton Islands.
—— *lunata*, Peale	M'Kean Island (*Gräffe*), Phœnix and Canton Islands.
—— *melanauchen*, Temm.	Canton Island.
Anous stolidus (Linn.)	M'Kean Island (*Gräffe*), Gardner Island (*Pickering*), Phœnix and Canton Islands.
—— *cœruleus* (Bennett)	M'Kean Island (*Gräffe*), Sydney, Phœnix, Canton, and Birnie Islands.
Gygis candida, Gmel.	M'Kean Island (*Gräffe*), Sydney, Phœnix, Canton, and Birnie Islands.

Pelecanidæ.

Fregata minor (Gmel.)	Phœnix Island.
—— *aquila* (Linn.)	M'Kean Island (*Gräffe*).
Phaeton rubricauda, Bodd.	M'Kean Island (*Gräffe*), Sydney, Phœnix, and Canton Islands.
—— *æthereus*, Linn.	M'Kean Island (*Gräffe*).
Sula leucogaster (Bodd.)	M'Kean Island (*Gräffe*), Sydney, Phœnix, Canton, and Birnie Islands.
—— *cyanops* (Sundev.)	M'Kean Island (*Gräffe*), Gardner Island (*Pickering*), Sydney, Phœnix, and Canton Islands.
—— *piscatrix* (Linn.)	M'Kean Island (*Gräffe*), M'Kean, Gardner, and Sydney (*Pickering*), Canton and Phœnix Islands.

Procellariidæ.

Puffinus assimilis, Gould	M'Kean Island (*Gräffe*).
—— *dichrous*, F. & H.	M'Kean Island (*Gräffe*).
—— *chlororhynchus*, Lesson	M'Kean Island (*Gräffe*).
—— *nativitatis*, Streets	Phœnix and Canton Islands.
Œstrelata parvirostris (Peale)	Phœnix and Canton Islands.
Fregetta albigularis, Finsch	Phœnix Island.

Anatidæ.

Dafila modesta, Tristram	Sydney Island (*Arundel*).

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[1] Dr. Gräffe's observations are quoted from Finsch and Hartlaub, 'Fauna Centralpolynesiens'; Dr. Pickering's, from Cassin, 'U. S. Expl. Exped.,' Mamm. & Ornith.; those of Mr. Arundel, from Tristram, P. Z. S. 1886, p. 79. Where no reference is given the observation is mine.